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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,239	06/26/2003	Kirby Koster	15009-US	4240

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EXAMINER	
TARANINA, MARINA Y	
ART UNIT	**PAPER NUMBER**
2613	

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/606,239	KOSTER ET AL.	
	Examiner	Art Unit	
	Marina Taranina	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 Jun 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 4, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Chang et al. (US 6,219,161).

(1) With respect to claim 1, Chang discloses a method of protecting a lightpath segment in a mesh, wavelength division multiplexed (WDM) communications network (fig. 5) wherein said mesh WDM network has multiple lightpath segments (501-504 in fig. 5), the method comprising: providing a protection path (alternate path) for a selected one of said lightpath segments (col. 11, lines 42-65).

(2) With respect to claim 3, Chang discloses the method as defined in claim 1 wherein each lightpath segment has a network element (421-425 in fig. 5) at each end thereof, said respective network elements coordinating a switch over from a working path to said protection path (col. 10 lines 42-47 and col. 11 lines 21-27).

(3) With respect to claim 4, Chang discloses the method as defined in claim 3 wherein said switch over is completed in response to instruction received from a network management system (NMS) (col. 10 lines 42-47 and col. 11 lines 21-27).

(4) With respect to claim 10, Chang discloses a method of protecting multiple lightpath segments in a mesh, wavelength division multiplexed (WDM) communications network (fig.2) wherein said mesh WDM network has multiple lightpath segments (221-226 in fig. 2), the method comprising providing multiple protection paths (path 1 or path 2 in fig. 2) for one or more of said multiple lightpath segments (path 223-224) (col. 8, lines 44-48 and 53-58).

3. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Walters et al. (US 2002/0176131).

(1) With respect to claim 1, Walters discloses a method of protecting a lightpath segment in a mesh, wavelength division multiplexed (WDM) communications network (fig. 1) wherein said mesh WDM network has multiple lightpath segments (links between OTS nodes in fig. 1, page 3 para 0070 and 0074), the method comprising: providing a protection path for a selected one of said lightpath segments (fig. 33-c, page 19 para 0292).

(2) With respect to claim 2, Walters discloses the method as defined in claim 1 wherein said protection path employs a dedicated wavelength (fig. 33-c, page 19 para 0292).

(3) With respect to claim 3, Walters discloses the method as defined in claim 1 wherein each lightpath segment has a network element (OTS node) at each end

thereof, said respective network elements coordinating a switch over from a working path to said protection path (page 4 para 0079 lines 9-14 and 22-23).

(4) With respect to claim 4, Walters discloses the method as defined in claim 3 wherein said switch over is completed in response to instruction received from a network management system (NMS) (fig. 34 page 19 para 0299)

(5) With respect to claim 5, Walters discloses the method as defined in claim 3 wherein said switch over is completed in response to a failure (link between 2 and 3 in fig. 33-a) in said working path (1-2-3-5-6 in fig. 33-a) (page 19, para 0289, 0291 lines 1-2).

(6) With respect to claim 6, Walters discloses the method as defined in claim 4 wherein said network management system (fig. 34) controls functionality of said communications network (fig.1) (page 18 para 0271 lines 3-5, page 19 para 0298).

(7) With respect to claim 7, Walters discloses the method as defined in claim 6 wherein said NMS (fig. 34) functions to establish said protection path (page 20 para 0303).

(8) With respect to claim 8, Walters discloses the method as defined in claim 6 wherein said NMS (fig. 34) monitors status of said protection path (page 20 para 0305 0307).

(9) With respect to claim 9, Walters discloses the method as defined in claim 6 wherein said NMS provides an operator with a graphical interface (GUI between blocks 3125 and 3105 in fig. 31) to monitor routing of said protection path (page 18 para 0275, page 20 para 0305).

4. Claims 10-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Elie-Dit-Cosaque et al. (US 2004/0246892).

(1) With respect to claim 10, Elie-Dit-Cosaque discloses a method of protecting multiple lightpath segments in a mesh, wavelength division multiplexed (WDM) communications network (fig.1) wherein said mesh WDM network has multiple lightpath segments (14 in fig. 1), the method comprising providing multiple protection paths for one or more of said multiple lightpath segments (page 1 para 0010).

(2) With respect to claim 11, Elie-Dit-Cosaque discloses the method as defined in claim 10 wherein said multiple protection paths employ a shared wavelength (channels, page 2 para 0026 line 5 and para 0028).

(3) With respect to claim 12, Elie-Dit-Cosaque discloses the method as defined in claim 10 wherein each lightpath segment (14 in fig. 1) has a network element (12 in fig. 1) at each end thereof, said respective network elements (12 in fig. 1) coordinating a switch over from a working path to one of said multiple protection paths (page 2, para 0032-0035).

(4) With respect to claim 13, Elie-Dit-Cosaque discloses the method as defined in claim 12 wherein said switch over is completed in response to instruction received from a network management system (NMS) (20 in fig. 2, page 2, para 0025).

(5) With respect to claim 14, Elie-Dit-Cosaque discloses the method as defined in claim 12 wherein said switch over is completed in response to a failure in said working path (a failure/disprupted communication of the optical path is a most common type of failures that occure in optical communication networks. Therefore, switching from

working path to a protection path in response to a failure is inherent feature of the invention, see also page 1 para 0008 lines 7-12, and para 0009).

(6) With respect to claim 15, Elie-Dit-Cosaque discloses the method as defined in claim 13 wherein said network management system (20 in fig. 2) controls functionality of said communications network (fig. 1) (page 2 para 0025 and 0028).

(7) With respect to claim 16, Elie-Dit-Cosaque discloses the method as defined in claim 15 wherein said NMS (20 in fig. 2) functions to establish said one or more protection paths (page 2 para 0032, page 3 para 0041).

(8) With respect to claim 17, Elie-Dit-Cosaque discloses the method as defined in claim 15 wherein said NMS (20 in fig. 2) monitors (by updating and maintaining entries in the global allocation database 26 in fig. 2) status of each of said one or more protection paths (page 2 para 0026, 0028, 0031 lines 1-3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 18 (18/15/13/12/10) is rejected under 35 U.S.C. 103(a) as being unpatentable over Elie-Dit-Cosaque (US 2004/0246892) in view of Walters et al. (US 2002/0176131).

Elie-Dit-Cosaque discloses all the subject matter as recited in Claims 15, 13, 12 and 10, but fails to teach the method wherein NMS provides an operator with a graphical interface to monitor routing of one or more protection paths.

However, with respect to claim 18, Walters teaches the method as defined in claim 15 wherein NMS provides an operator with a graphical interface (GUI between blocks 3125 and 3105 in fig. 31) to monitor routing of a protection path (page 18 para 0275, page 20 para 0305).

It is desirable to have an user-friendly network management tools that give the operator the ability to visualize and monitor network routing. Without this visualization, network maintenance activities and troubleshooting are difficult and error-prone. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include Walters' teachings of using a graphical interface (GUI) to monitor routing of a protection path into the method of Elie-Dit-Cosaque as to simplify and improve reliability of the network maintenance activities and troubleshooting.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,111,673 discloses next generation internet networking

US 2003/0161304 discloses methods, devices and software for combining protection paths across a communication network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Taranina whose telephone number is 571 270 1085. The examiner can normally be reached on Mon-Fri (alternative Fri off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571 272 2600. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MT

SHUWANG LIU
SUPERVISORY PATENT EXAMINER